

## EAST Search History

### EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	92	(HIRATA/in. or KIMINOBU.in. or ESAKA.in. or TAKEHIRO.in.) and (exhaust near4 gas) and (engine)	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:25
S2	38	((KIMINOBU) near2 (HIRATA)).INV.	EPO; JPO; DERWENT	OR	ON	2009/11/24 12:25
S3	22	((KIMINOBU) near2 (HIRATA)).INV.	US_PGPUB; USPAT; USOCR	OR	ON	2009/11/24 12:26
S4	5	(HIRATA/in. or KIMINOBU.in. or ESAKA.in. or TAKEHIRO.in.) and (exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail) and (injector or meter))	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26
S5	2	((TAKEHIRO) near2 (ESAKA)).INV.	US_PGPUB; USPAT; USOCR	OR	ON	2009/11/24 12:26
S6	108	((engine) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector )) ).CLM.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26
S7	171	( ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector )) ).CLM.	US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26

S8	78	((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter or valve) near4 (fuel or reduc\$4 or reductant) ) and (engine near4 (output or torque or load or speed or power))). CLM.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26
S9	31	((exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter or valve) near4 (system or device)) ).CLM.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26
S10	20	((exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter) ) ). CLM.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26
S11	11	((exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail) near4 (injector or meter))). CLM.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:26
S12	14	(US-20070079601-\$). did. or (US-6983589-\$ or US-6487852-\$ or US-6546720-\$ or US-7216478-\$ or US-6167698-\$ or US-6119448-\$ or US-5845487-\$ or US-6357226-\$ or US-7210459-\$ or US-7257941-\$ or US-4854123-\$).did. or (JP-02283838-\$).did. or (DE-4210647-\$).did.	US-PGPUB; USPAT; JPO; DERWENT	OR	ON	2009/11/24 12:26

S13	5430	("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter\$4 or valve or inject\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:27
S14	3361	("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector or meter\$4 or valve or inject\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:27
S15	1116	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter) )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:27
S16	72	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter) near4 (system or device)) and (cataly \$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S17	109	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter or valve) near4 (system or device)) and ("73"/ \$.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S18	31	(60/286.ccls. or 60/303.ccls.) and ("73"/\$.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

S19	31	(60/272-324.ccls.) and ("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter\$4 or valve or inject\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S20	106	("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector ) near4 (fuel or reduc\$4 or reductant) )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S21	277	("60"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter or valve) near4 (fuel or reduc\$4 or reductant) ) and (engine near4 (output or torque or load or speed or power))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S22	47	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail) near4 (injector or meter) near4 (system or device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S23	186	("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector ))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

S24	95	("60"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector ) near4 (fuel or reduc\$4 or reductant) ) and (engine near4 (output or torque or load or speed or power))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S25	62	("60"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector ) near4 (fuel or reduc\$4 or reductant) ) and (engine near4 (output or torque or load or speed or power))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S26	79	("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail\$4 or fault\$4 or leak\$4) near2 (injector ) near4 (fuel or reduc\$4 or reductant) ) and (engine near4 (output or torque or load or speed or power))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S27	89	(exhaust ) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad\$4 or fail or fault or inoperat\$4) near4 (injector or meter) near4 (system or device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

S28	121	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector or meter) near4 (system or device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S29	86	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4) near4 (injector or meter) ) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S30	119	("73"/\$.ccls.) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4) near4 (injector ) near4 (fuel or reduc\$4 or reductant) ) and (engine near4 (output or torque or load or speed or power))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S31	235	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S32	215	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

S33	265	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near2 (injector or meter or nozzle)) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4)) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S34	73	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near (injector or meter or nozzle)) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4)) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S35	197	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed ))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S36	45	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed ))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

		near4 ( restric\$4 or reduc\$4 or low\$4 )				
S37	76	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or malfunction) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed )) and (60/272- 324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S38	79	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or malfunction or faulty) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed )) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S39	100	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or malfunction or faulty or leak\$4) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed )) and (60/272- 324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

S40	287	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or malfunction or faulty) near4 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed ))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S41	201	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or malfunction or faulty) near2 (injector or meter or nozzle)) and (cataly\$4 or absorb\$4) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed ))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28
S42	53	(exhaust near4 gas) and (engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or malfunction or faulty) near2 (injector or meter or nozzle)) and (engine near4 (output or torque or load or speed or power)) and (engine near4 (speed )) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/24 12:28

S43	5903	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near2 (injector or meter or nozzle)) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:33
S44	2390	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near2 (injector or meter or nozzle)) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4) near4 (restrict\$4 or chang\$4 or reduc\$4) )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:34
S45	303	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near2 (injector or meter or nozzle) near4 exhaust) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4) near4 (restrict\$4 or chang\$4 or reduc\$4) )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:35

S46	173	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near2 (injector or meter or nozzle)) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4) near4 (restrict\$4 or chang\$4 or reduc\$4) ) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:40
S47	64	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking) near2 (injector or meter or nozzle) near4 exhaust) and ( (output or torque or load or speed or power or accelerat\$4 or decelerat\$4) near4 (restrict\$4 or chang\$4 or reduc\$4) ) and (60/272-324.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:40
S48	61	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking or clog\$4) near2 (injector or meter or nozzle)) and (60/277.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:48
S49	20	(engine) and ((abnormal\$4 or deteriorat\$4 or degrad \$4 or fail\$4 or fault\$4 or leak\$4 or plug\$4 or leaking or clog\$4) near2 (injector or meter or nozzle)) and (60/277.ccls. and (60/286.ccls. or 60/295-303.ccls.) )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/03 12:49

S50	8	("20020107651"   "20020150532"   "20030101713"   "20040076565"   "6408616"   "6487852"   "6983589"   "7082753").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/12/03 12:53
S51	1	("7257941").URPN.	USPAT	OR	ON	2009/12/03 12:53

12/ 6/ 2009 7:55:32 PM

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